International Journal of Advanced Studies in Business Strategies and Management | IJASBSM
p-ISSN: 2354-4236 | e-ISSN: 2354-4244
Volume 9, Number 1 March, 2021

Poverty Reducing Impact of Foreign Direct Investment in Nigeria

[1]Adigun, Abiodun Oladele & [2]Oke, Dorcas Funmilayo
[1]Department of Economics, School of Management Technology,
[2]Department of Entrepreneurship, School of Management Technology,
Federal University of Technology, Akure, Nigeria

Article DOI: 10.48028/iiprds/ijasbsm.v9.i1.10

Abstract

The study examines the poverty reducing impact of foreign direct investment (FDI) in Nigeria between 1992 and 2016, sectoral inflow of FDI, as well as the factors preventing the inflow of FDI into the economy making it difficult to achieve economic growth and development. Secondary data was sourced from World Development Indicator (WDI). The regression analysis of ordinary least square (OLS) was adopted to examine the poverty reducing impact of foreign direct investment. Augmented Dickey Fuller Test (ADF) unit root test was used to test for stationarity of the data series and ARDL was thereafter adopted because of the level of stationarity of the variables. The regression result revealed that there is little correlation relationship between foreign direct investment and poverty reduction and the ADF result showed the presence of stationarity among the variables data set, while the ARDL result confirmed the existence of foreign direct investment (FDI) has a significant negative effect on poverty reduction in the short run at 5% level of significance. The study established that foreign direct investment as an engine of economic growth and also key in alleviating poverty has often been directed to sectors with low impact on poverty reduction. The study recommends that government should intensify efforts to encourage the inflow of foreign direct investment to sectors that has very high capacity for poverty reduction, formulate favourable policies and increase the ease of doing business in the country. FDI inflows should be diversified from oil sector to non -oil sector to ensure it generate more employment opportunities for poverty reduction.

Keywords*: Poverty, Foreign direct investment, Unemployment*

Corresponding Author: **Adigun, Abiodun Oladele**

Background to the Study

Foreign Direct Investment(FDI) are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor (William 2003), World Bank 2007). Foreign Direct Investment is a type of investment that involves the injection of foreign funds into an enterprise that operates in a different country of origin from the investor. On the other hand, Owen (2009) defines poverty reduction as a short-hand for promoting economic growth that will permanently lift as many people as possible over a poverty line. Growth is the single most important factor in poverty reduction, so foreign direct investment is also central to achieving that important World Bank goal. Foreign direct investment remains one of the most effective tools in the fight against poverty. (Klein, Aaroon and Hadjimicheal, 2001). FDI in the host country may have direct and indirect effects on poverty reduction. The indirect impact of FDI on the reduction of poverty is through economic growth which results in the improvement of living standards due to the increase in GDP, improvement of technology and productivity, as well as economic environment. (Nguyen, 2003).

Foreign Direct Investment represents a veritable source of foreign exchange and technological transfer, especially to a developing economy like Nigeria. It can be analyzed in terms of inflow of new equity capital (change in foreign share capital, re-invested earning (unremitted profit), trade and supplier's credit, company or its affiliates (Nwankwo et, al, 2013). Otepola (2002), stated that FDI has emerged as the most important source of external resource flows to developing countries over the years and has become a significant part of capital formation in these countries, though their share in the global distribution of FDI continue to remain small or even declining. It has gained importance as the avenue for international resource flows, especially from the developed to the developing countries. It is regarded as a key ingredient for successful economic growth and development in developing countries due to its various socio-economic impacts like employment generation, source of infrastructure, resource utilization and access to the international markets as well as managerial and technological transfers. In recognition of these roles of FDI in economic transformation and as an engine of growth, developing economies are positioning themselves as preferred investment destinations. (World Bank, 2003)

Despite the various advantages attached to FDI, developing countries for instance, Nigeria is still faced with serious disrepair and underdevelopment which is characterized by widespread poverty, unemployment, and income inequality, underutilization of productive capacity and persistent balance of payment deficit. Despite Nigeria's enormous resources and potential, poverty is widespread throughout the nation. Over 62 percent of Nigeria's 206 million people still live in extreme poverty and 70 percent fall below poverty line with unemployment rate at 16.5 percent. (CIA World Factbook, 2018). Regardless of the various heartwarming programs that the Federal government had put in place in the past, such as; Structural Adjustment Program (SAP) introduced in 1986 to promote growth and reduce poverty, the National Directorate of Employment (NDE) of 1986 with the main objectives of combating unemployment and articulate policies aimed at developing work program with labor intensive potential, the Petroleum (special) Trust Fund (PTF) established in 1994, with the responsibility of utilizing the gains from increase in the prices of petroleum products, to complete all government-abandoned projects and to rehabilitate decaying social infrastructure nationwide etc., the percentage of the poor seems not to reduce as expected. Aside all these, government over the years have put in a lot of both fiscal and monetary policies, carry out a lot of reforms both in the public sector and banking sector, yet the rate of poverty still persist in a country like Nigeria despite the numerous potentials of development in the country.

Empirical results have shown over the years that, there are numerous advantages in the reduction of poverty through FDI. Some of which includes; technological transfer, capital inflow, economics of scale, Port reforms and establishment of Cargo ports across the country, improving the ease of doing business and reducing the bureaucracy involves in business registration, signing of the 2020 Company and Allied matter act, managerial and technical expertise and other potential spillover benefits for the host country which are good reasons for paying more attention to FDI. The question then is what are the factors preventing the FDI from making reasonable impact on the economy? One of such factors is Inflation. Nigeria's inflation has also been on the upswing. Inflation, which had been a single digit since November 2014, rose to 18.3 percent in 2016. Given this, real yields on fixed income securities have been quite low or negative. The monetary strategy to keep interest rates by the Central Bank of Nigeria (CBN) in order to improve yields, improve dollar liquidity through foreign portfolio investment have proved largely unsuccessful. (Oguh, 2016).

The prolonged state of insecurity in Nigeria is another major factor, which often discourages the inflow of foreign investors. The country continues to contend with spurts of violence, threats of secession and insecurity from various region of the country. Very few foreign companies are willing to jeopardize the lives of their employees and assets in such volatile and sometimes violent environment. Another fundamental factor is the poor investment climate characterized by overly stringent government policies, bureaucratic bottlenecks for securing permits, registration of business and a weak legal framework which does not encourage prospective investors. Finally, is the nation's huge infrastructural deficit which is a major investment deterrent. For a country like Nigeria, FDI is expected to make up for domestic capital shortfalls, provide technology, managerial skills, facilitate access to foreign market and most importantly to improve the integration of the continent global economy, spur economic growth and alleviate poverty by widening access to employment opportunity. Despite the inflow of capital funds into Nigeria, the country continues to witness slow economic progress and high level of poverty. Over the last decade, Nigeria consistently ranked among the top three destinations for FDI in Africa surpassing South Africa, according to the United Nations Conference on Trade and Development (UNCTAD). Total FDI ranged between $5 and $7 billion per year as yield-hungry investors targeted the oil and gas, real estate, communications and consumer goods sectors of Africa's largest economy. (Oguh, 2016). Still, Nigeria recorded no direct capital investment inflow in the third quarter of 2016 and poverty is still widespread.

Nigeria which was once the first destination in Africa for FDI now ranks nineteenth according to recent study. Recently, the National Bureau of Statistics (NBS, 2018), reported that FDI inflow plummeted from $9.64 billion to $5.12 billion in 2016 leading to a $46 percent drop. The major reason behind this is that crude oil which was once the World's most valued commodity is no longer as profitable as it once was and the age of crude oil is gradually coming to an end. The world is rapidly moving away from oil as an energy source to other sustainable and environmentally-friendly sources. (Okogba, 2017). With FDI coming in for oil, Nigeria has not been able to find other alternative investment possibility which would attract FDI as oil and telecommunications did. Although, Nigeria has large oil revenue, but because there is a tenuous nexus between the oil sector and the rest of the local economy, unemployment is high, poverty is prevalence and security is a current challenge. (Okonjo-Iweala, 2012, Olugbile, 2012). This connote that the large oil revenue is not used to generate employment and poverty reduction in the economy.

It is worthy to note the impact of the country's trade openness to other countries as one of its indicator is foreign direct investment. The inability of developing countries like Nigeria, to fully embrace trade openness in their economic and developmental process is making them not to participate fully in the world economy. The country has been battling with realities of developmental process not only politically and socially but also economically as agriculture which was once the main stay of the economy and greatest foreign exchange earner in 1960s is at the moment merely stagnant in agricultural export due to advent of oil as a major source of foreign exchange earning in Nigeria in 1974 (CBN, 2006). Trade openness is very crucial to any economy as it is a multi-dimensional concept that not only affects the economic, social, cultural and environmental facets of life but also the relations among government and nations of the world. Another reason for low FDI inflow is the way Nigeria has treated investors in the past. Agreements reached with one government are unilaterally and illegally terminated without compensations by another government. Thus, investors are wary of investing in a country whose records of keeping long-term agreements are shabby.

Generally, the success or failure of the past and present governments in attracting sufficient foreign investment for growth and failure of FDI to bring about the desired level of growth in the economy depends on the prevailing political and economic circumstances in the country. According to Joseph (2018), "Most of the policies of the government are anti-investment." Study shows that different policy measures adopted in the past by the government towards FDI mobilization, especially in the 80s has not been very encouraging. Furthermore, it is difficult to ascribe the economic growth in Nigeria to the inflow of FDI especially when FDI inflow was growing but slowly. That is, it is possible to have high FDI inflow that does not coincide with a high real GDP growth rate, though the growth rate has been inconsistent. Thus, the paradox of huge inflow of FDI to Nigeria and the high rate of poverty. The study examines the impact of foreign direct investment on poverty reduction in Nigeria, establish the direction of causality between foreign direct investment and poverty reduction and examine the factors preventing the inflow of FDI into the economy.

With the continuous increase in poverty level in the country due to increase in unemployment and other factors even though foreign direct investment is on the uprise, it is important to carry out a research in order to determine the factors responsible for this situation in the economy and to also determine to what extent foreign direct investment impacts poverty reduction in the economy. The study contributes to the literature by examining the impact of FDI inflows and poverty reduction in Nigeria within the period of 1992 and 2016. The study subdivides the research period into two; 1992-1998 representing the military regime and 1999-2017 representing the civilian regime with the aim of over viewing FDI trends and performance in Nigeria during the military and civilian regime.

Sectoral Inflow of FDI and its Impact on Poverty Reduction

Generally, policies and strategies of Nigerian government towards foreign direct investment are shaped by two principal objectives, the desire for economic independence and the demand for economic development. Multinational companies are expected to bring into Nigeria, foreign capital in the form of technical skills, entrepreneurship, and technology and investment fund to boost economic activities thereby raising the standard of living of Nigerians Odozi (1995). Adigun (2015) who examined the sectoral inflow of FDI and its impact on economic growth in Nigeria discovered that investment in business and agricultural sectors takes time before making meaningful impact on the economy and that FDI impact in Nigeria is low because, it has been towards oil and gas, communication, construction and the service sector. Essien and Onwioduokot (1998), argued that the trend of sectoral analysis of foreign direct investment in the economy from 1970 to 1998 reveals that investment by foreigners in Nigeria especially the transnational companies are concentrated in certain sectors that favour their type of business or investment to only 1.1 percent of the total cumulative foreign investment in Nigeria. This has since been on the decline, despite all the generous incentives including duty free imports of agricultural inputs and credit guarantee scheme to foreign investors.

Okoli and Agu (2015) in their study of FDI inflow and manufacturing sector performance in Nigeria suggested the need for government actions to be geared towards strategically maintaining and sustaining policies that will help encourage FDI inflow especially in the long run since a positive effect on the manufacturing value added was only feasible in the long run. Akoh (1999), in his study discovered that foreign direct investment in natural resources exploitation is still dominant in Nigeria. But in recent years, it has begun shift towards services sector. Service sector accounted for about 60 percent of Nigeria foreign direct investment stock in 1998 companies with only 25 percent in the early 1970's (UNCTAD 1999). The factors behind this are the increasing tradability of services (that is, ability to produce in one place and consume in another place) and the gradual Liberalization of service industries such as telecommunication and electricity. Other factors suggested includes availability of infrastructure facilities i.e. stable power supply and good roads, large market, nearness to port facilities both air and sea and of course security of lives and property.

Mosima (1999), said when it comes to foreign direct investment in Nigeria; the common perspective is that it is largely driven by natural resources and market size. But it is when foreign investment into the agriculture sector is increased which will mean transfer of technology and in turn increase in output and export that poverty can be reduced. Since the greatest percentage of Nigerians are involved in agriculture, the presence of foreign investment will boost income distribution i.e. improved pesticides, seedlings, high breed species and training ground for local farmers while earning better income and since they have foreign link, export of produce will be easier. But foreign investment into the agriculture sector has been limited in Nigeria because certain factors which includes, problem of pricing, land acquisition policy, storage facilities, high level of uncertainties, inadequate research on agriculture therefore hampering improve income distribution in the country.

Asiedu (2009), in her own paper argued that natural resources, market size, government policy, institutional and political instability constitute major reasons, why foreign direct investment may be located in certain areas. She argued further that coastal regions naturally attract more foreign direct investment than inland regions. Government policy on privatization also constitutes a major attracting factor, because foreign direct investment will naturally move to areas where those privatized firms are located. Both backward and forward linkages to feed or service the multinationals companies are also a factor for the sectoral allocation of foreign direct investment.

Lastly, the impact of these sectoral inflows of FDI on poverty reduction is that, if FDI has not been sectoral in nature, poverty would have reduce more than these in the country because FDI inflow into the agricultural sector would mean mass production of both cash crops and food crops, importation of improved seedlings and species, better storage facilities, improved pesticides and training ground for local farmers which in turn would mean more income for the farmers, through local sales and exportation, all year round production and sales due to availability of storage facilities. And the sector would be more attractive to the mass unemployed youth. On electricity, despite government licensing of independent power projects (IPP) for the past few years, FDI inflow into the sector is still very low, despite the so called privatization, which ought to have increase the megawatts of electricity generated in the country, the multiplier effect of increasing the pace of industrialization, importation of Technology and improving standard of living, generating employment, and reducing poverty. On Tourism, which are naturally spread around the country both in urban and rural areas, if FDI has been consistent in this sector, rather than buying of privatized government hotels in urban areas it would have reduce unemployment, generate tax for government, improve income for rural dwellers, hence reduction in poverty level. Another sector that has very high potency for poverty reduction is the Sport sector. This is basically because of its high level of attractiveness to the Nigerian Youths, but unfortunately, both local and foreign investment into the sector has not been encouraging, hence, contributing to the high level of unemployment among the teeming Youths in the country.

Empirical Review

Findings revealed that FDI is an important vehicle for economic growth. However, there is a need to understand if FDI really has a meaningful contribution to poverty reduction in Nigeria, as this review shows that the debate on the impact of FDI on economic growth is inconclusive, the role of FDI on poverty reduction can be positive, negative or insignificant. Ayashagba and Abachi (2002) on the effect of foreign private investment on economic growth in Nigeria from 1980 to 1997, showed that FDI has significant impact on economic growth and with the tendency of reducing poverty in Nigeria. They conclude that though foreign private investment had a significant impact on LDCs, its presence does not reflect on the growth of these economies.

Adeleke, Olowe and Fasesin (2014) analyzed the impact of Foreign Direct Investment on Nigeria's economic growth over the period of 1999-2013 using ordinary least square estimation technique and findings revealed that economic growth is directly related to inflow of foreign direct investment and that a good performance of the economy is a positive signal for inflow of FDI. Thus, FDI is an engine of economic growth. Egbulonu and Ezeocha (2018) who examines trade openness and Nigeria's economic growth between 1990 and2015 using Auto-regressive distributed lag (ARDL) approach to co integrate, the result confirmed that trade openness and gross capital formation had positive and negative impacts respectively on growth rate of GDP in the short run and FDI should encouraged as it was seen to have significantly improved economic growth in Nigeria.

Borensztein, Gregorio and Lee (1998) study how foreign investment affects economic growth in a cross-country regression framework, utilizing data on FDI flows from industrial countries to developing countries over the last two decades, the results suggest that FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. However the higher productivity of FDI holds only when the host countries has a minimum threshold stock of human capital. Fowowe and Shuaibu (2014) in an empirical investigation carried out on the relationship between foreign direct investment (FDI) inflows and poverty in some selected African economies using system generalized method of moment, it was discovered that FDI inflows have significantly contributed to poverty reduction in African countries. The result also showed that better institutional quality and human capital development are associated with reducing poverty and better functional financial systems enhance the efficiency of FDI in reducing poverty.

Ugwuegbe, Ugochukwu, Okore & John (2013), who studied the impact of foreign direct investment on the Nigerian economy from 1981 to 2009, using OLS method, discovered that FDI has a positive and insignificant impact on the growth of Nigerian economy. Interest rate was found to have positive but insignificant effect while exchange rate positively and significantly affects the growth of Nigerian economy. Okpe and Abu (2009) in their investigation on the foreign private investment and poverty reduction in Nigeria from 1975 to 2003 using regression analysis for the period discovered that inflow of foreign private investment and foreign loans into Nigeria alleviate poverty. However, government expenditure and continuous increase in petroleum profit tax would increase the poverty level in Nigeria. Adesiyan (2014), research on impact of foreign direct investment on poverty reduction in Nigeria from 1980 to 2009, the ECM-based estimation results showed that, while poverty reduction is positively related to FDI, government expenditure and infrastructure, it is negatively related to inflation, national debts and human capital.

Anfofum (2005), discovered in his investigation on macroeconomic determinants of private investment in Nigeria that external debt burden, inflation and exchange rate, political crisis and coup d'état negatively affect private investment in the manufacturing sector. This negative relationship affirms to the major reasons why investors lack confidence in Nigeria's investment climate and as such potential investors are scared away. In a panel data analysis of foreign direct investment and poverty from the perspective of developing countries carried out by Ucal (2014), by developing a data set and an econometric model to analyze FDI inflows and poverty relations at the macro level panel data set, result showed that there is statistically significant relationship between FDI and poverty and it is obvious that FDI reduces poverty in selected developing countries.

In Gohou and Soumare (2012), “Does foreign direct investment reduce poverty in Africa and are there regional differences?” analyses carried out using FDI net inflows per capita, the United Nation Development Program's and Human development index as the principal variables, it was discovered that there is a strong, positive and significant relationship between FDI net inflows and poverty reduction among African regions. It was also discovered that FDI has a greater impact on welfare in poorer countries than it does in wealthier countries. Offiong and Ignatius (2014) in their empirical study on determinant of foreign direct investment (1980-20111) using the multiple regression analysis, the study discovered that a significant relationship existed between GDP and inflow of GDP as well as real wage rates. It was also discovered that no significant relationship exist between FDI inflow and the relative openness index as well as lending rate under the year reviewed. It was also discovered that improvements in GDP will lead to an improvement in FDI inflow.

Babasanya (2018), examined the relationship between FDI and employment generation in Nigeria from 1999 to 2016 using the OLS method, findings showed that FDI has a positive relationship with employment rate in Nigeria. The researcher also recommended that the level of insecurity in the country especially with recent terrorist attacks should be reduced in order to create a safe environment to entice prospective investors. Salami and Oyewole (2013) investigated the relationship between FDI and employment between the periods of 1990-2012. The Ordinary Least Square (OLS) estimation technique was employed. The variables used include; total employment growth rate, export rate, exchange rate, import rate, inflation rate and FDI. The analysis found a significant link between FDI and employment in Nigeria in the short run and long run. In a test carried out by Olusanya (2013) on the impact of foreign direct investment inflow on economic growth in a pre and post deregulated Nigeria economy between the period of 1970-2010 using Granger Causality test, he discovered that between that period there is a causality relationship between economic growth in term of GDP and foreign direct investment inflow i.e. economic growth into the country drives foreign direct investment inflow into the country and vice versa.

Simon-Oke (2014), in his study on foreign private investment, capital formation and poverty reduction in Nigeria using co-integration and error correction mechanism (ECM) and granger causality tests with annual time series data covering the period between 1978 and 2008, discovered that FDI in Nigeria has not significantly contributed to poverty alleviation in Nigeria. Nwankwo, Ademola and Kehinde (2013), in their investigation on the impact of globalization of foreign direct investment in Nigeria using a purely descriptive and narrative methodology and a secondary data, discovered that FDI has been of massive benefit to Nigeria in the area of employment, transfer of technology, encouragement of local enterprises etc. However, there are certain hindrances to the full realization of the benefit of foreign direct investment.

Theoretical Framework

Harrod-Domar Theory of Growth

The major theory adopted in the research is Harrod-Domar Theory of Growth; is a classical Keynesian model of economic growth developed by Roy F. Harrod (1939) and Evsey Domar (1946). The model extended the Keynesian analysis of income and employment to long-run setting and therefore considered both the income and capacity effects of investment. The model implies that growth depends on the quantity of labor and capital; more investment leads to capital accumulation, which generates economic growth. Thus, economic growth depends on policies to increase investment, by increasing saving, and using that investment more efficiently through technological advances. According to the model, there are three kinds of growth: warranted growth, actual growth and natural rate of growth. Warranted growth rate is the rate of growth at which the economy does not expand indefinitely or go into recession. The condition for warranted growth rate is stated as:

$$Gw = s/vr$$

Gw= Warranted growth rate, s= average propensity to save and vr= required incremental capital-output ratio sustain the warranted growth rate and is determined by the state of technology and the nature of goods constituting the increment in output. Actual growth is the real rate increase in a country's GDP per year. It is the growth of output or income which actually occurs in a period. Actual growth rate is written as:

$$Gy = s/v$$

Gy= Actual growth rate.
s= rate of saving (i.e proportion of saving to national income)
v= capital-output ratio.

Natural growth is the growth an economy requires to maintain full employment. It is the maximum rate of growth allowed by the increases of macro variables like population growth, technological improvements, and growth in natural resources. Natural growth is the highest attainable growth rate which would bring about the fullest possible employment of the resources existing in the economy. Natural growth rate can be written as:

$$Gn = I + t$$

Gn= Natural growth rate.
I= growth rate of population (or labour force)
t= technological progress.

For equilibrium growth rate at full employment of all existing resources, the following condition must be satisfied:

$$Gn = Gw = Gy$$

Any deviation from this would bring about instability in the economy.

However, there are some limitations of applying Harrod-Domar models to the conditions of developing countries. Firstly, the assumption of an initial full-employment level of income is not valid for developing countries. Secondly, in most developing countries, labour is in plentiful supply but physical capital is not thus, slowing down economic progress. Thirdly, developing countries do not have sufficiently high incomes to enable sufficient rate of saving; therefore, accumulation of physical-capital stock through investment is low. Lastly, in term of development, critics claim that the model sees economic growth and development as the same; in reality, economic growth is a subset of development.

Model Specification

The model adopted in this research to test the poverty reducing impact of Foreign Direct Investment (1992-2016) was structured according to the work of Adigun and Oke (2018) who model the impact of foreign direct investment in reducing unemployment Nigeria, however, the model was modified to suit the purpose of the study.
The model is specified below as:

$$PVT = f\,(FDI, INF, UNEMP, TRO, EXR)$$

In explicit form;

$$PVT_t = \beta_0 + \beta_1(FDI_t) + \beta_2(INF_t) + \beta_3(UNEMP_t) + \beta_4(TRO_t) + \beta_5(EXR_t) + \varepsilon_t$$

Where;
PVT = Poverty rate, FDI = Foreign direct investment at time t, INF = Inflation rate in the country at time t, UNEMP = Unemployment rate at time t, TRO: trade openness at time t, EXR: exchange rate at time t and εt = error term.

Estimation Techniques

Ordinary Least Square (OLS) method

This statistical method is used in the study to determine best line of fitness through the set of given data, determine regression equations and also explain the relationship between the independent and dependent variable. The study made use of time series data covering the period of 1992-2019 which had been accumulated over time and are reliable. The research is analytical and empirical in nature and made use of secondary data obtained from World Development Index (WDI).

Unit Root Test

The result of the Augmented Dickey-Fuller (ADF) unit root test conducted on the variables is presented in Table 1.

Table 1: Results of Augmented Dickey-Fuller Unit Root Test

Variable	Level ADF Test Statistic	MacKinnon Critical Value at Level at 5% level	First Difference ADF Test Statistic	MacKinnon Critical Value at First Difference at 5% level	Decision
EXR	0.626126	-2.967767	-5.501860**	-2.971853	I(1)
FDI	-5.501860**	-2.971853	-5.766751	-2.971853	I(0)
INF	-2.027583	-2.967767	-4.358594**	-2.971853	I(1)
PVT	-3.599334**	-2.967767	-8.684071	-2.971853	I(1)
TRO	-8.684071**	-2.971853	-6.318478	-2.971853	I(0)
UNEMP	-2.730752	-3.004861	-4.145762**	-2.971853	I(1)

*Significant at 5% level.
Source: Author's Computation

The test result indicated that the time series variables Foreign Direct Investment (FDI), Poverty (PVT) and Trade Openness (TRO) were found not to be stationary at levels. Exchange rates (EXR), Inflation rate (INF) and Unemployment rate (UNEMP) were found to be stationary at first difference. After taking the first difference of the various data, the study found that they were all stationary at first difference. This indicates that those incorporated series in the dynamic regression model have no unit-root or are stationary at first difference and this implies that these series in their first difference are mean reverting and convergences towards their long-run equilibrium. Table 1 above only shows the point where all variables employed in the study were stationary. The decision rule is to reject the null hypothesis if the ADF statistic value exceeds the critical value at a chosen level of significance (in absolute term).

Examination of the impact of Foreign Direct Investment on Poverty
Using the Akaike information criterion (AIC), lag 3 was selected as the optimum lag length for the three models.

Table 2: Result of ARDL Test

Dependent Variable: PVT Method: ARDL Proxy for Foreign Direct Investment: FDI			
Variable	**Coefficient**	**t-Statistic**	**Prob.**
Short Run Form			
C	-1.922525	-1.795625	0.1227
D(PVT(-1))	-0.633950	-3.088635**	0.0214
D(PVT(-2))	-0.357983	-1.903580	0.1056
D(PVT(-3))	-0.209529	-1.049575	0.3343
D(FDI)	-1.777660	-2.564217**	0.0427
D(FDI(-1))	0.672033	0.692578	0.5145
D(FDI(-2))	-0.849662	-0.850634**	0.4276
D(EXR)	0.003214	0.071413	0.9454
D(EXR(-1))	-0.021416	-0.517026	0.6236
D(EXR(-2))	0.183153	3.968213***	0.0074
D(EXR(-3))	0.102531	2.647606**	0.0382
D(INF)	-0.221250	-1.684133	0.1431
D(INF(-1))	0.098209	0.904753	0.4005
D(INF(-2))	-0.097176	-1.522280	0.1788
D(UNEMP)	-0.273300	-0.216868	0.8355
D(UNEMP(-1))	1.346757	0.745399	0.4842
D(UNEMP(-2))	-1.794015	-0.896699	0.4044
D(UNEMP(-3))	-8.099629	-3.325159***	0.0159
D(TRO)	-0.034647	-0.338318	0.7466
D(TRO(-1))	-0.068556	-0.766581	0.4724
Long Run Form			
C	-0.873295	-1.806149	0.1209
FDI	-0.888177	-0.943599	0.3818
EXR	0.121502	2.822492**	0.0303
INF	-0.100032	-1.073938	0.3241
UNEMP	-4.006512	-2.799995**	0.0312
TRO	-0.046879	-0.724237	0.4962
R-squared	0.902979	F-statistic	2.939059
Adjusted R-squared	0.595745	Prob(F-statistic)	0.093122
Durbin-Watson Stat:	1.700433		
Breusch-Godfrey Serial Correlation LM:	2.327741	Prob(F-statistic)	0.2529

***Significant at 1% level.
**Significant at 5% level.
*Significant at 10% level
Source: Author's Computation from Eviews 10.

The above result shows that foreign direct investment (FDI) has a significant negative effect on poverty in the short run at 5% level of significance. This implies a unit increase in the value of foreign direct investment will induce -1.77660 decreases in poverty rate. At lag 1 and lag 2 foreign direct investments has an insignificant effect on poverty rate, an increase in a unit of foreign direct investment will induce 0.672033 increase in poverty rate at lag 1 while a unit increase in the value of foreign direct investment will induce -0.849662 decrease in poverty rate at lag 2. In the long run FDI has an insignificant negative effect on poverty rate, which means that a unit increase in the value of FDI in the long run will induce -0.888177 decrease in poverty rate. Exchange rate has an insignificant positive effect on poverty rate in the short run. This implies that a unit increase in exchange rate will induce 0.003214 increases in poverty rate. The result shows that exchange rate has a significant positive effect on poverty rate at lag 2 and lag 3 at 5% level of significance. At lag 1 exchange rate has an insignificant negative effect on poverty rate. In the long run, an increase in exchange rate will induce 0.121502 significant increases in poverty rate at 5% level of significance.

The result shows that inflation has an insignificant negative effect on poverty rate in the short run at all lags except lag 1 where the result shows an insignificant positive effect on poverty rate. In the short run, a unit increase in inflation will induce -0.221250 decrease in poverty rate. Also in the long run, the result shows a non-significant effect on poverty rate, this means that an increase in inflation will induce -0.100032 decrease in inflation.

Unemployment rate also have an insignificant negative effect on poverty rate. An increase in unemployment rate will induce -0.273300 decrease in poverty rate in the short run. At each lag unemployment has a negative effect on poverty rate except for lag 1 where it shows a positive relationship. The relationship is only significant at lag 3 while it is non-significant at all other lags. In the long run, unemployment also has a significant negative effect on poverty rate at 5% level of significance. An increase in unemployment rate will induce -4.006512 decrease in poverty rate.

Trade openness has a non-significant negative effect on poverty rate in both short run and long run. An increase in the value of trade openness will induce -0.034647 decrease in poverty rate in the short run while in the long run, a unit increase in the value of trade openness will induce -0.046879 decrease in poverty rate.

The coefficient of determination (R^2) and its adjusted R^2 are 0.90 and 0.59 respectively implying that there exists goodness of fit in the model. This means that about 90% of the variation in foreign direct investment is accounted for by variation in foreign direct investment, exchange rate, inflation rate, and unemployment rate and trade openness. The overall regression (F-Test) is significant at 10% level of significance implying that the joint effects of all the included variables were significant. The Durbin Watson statistic of 1.70 shows evidence of no autocorrelation in the model since it is approximately within the range of 2. The results show absence of serial correlation.

Determination of the Long Run Relationship between Poverty Rate and Foreign Direct Investment in Nigeria

The study employed the Auto regressive redistributed Lag (Bounds Testing) Approach to assess the long run relationship between Poverty rate and Foreign Direct investment in Nigeria.

Table 3: Result of the Bounds Test

Test Statistic	**Value**	**K**
F-statistic	4.284264	5
Panel B	**Mackinnon (1996) critical values**	
Critical Value Bounds	**I(0)**	**I(1)**
(at 5% Significance Level)	2.39	3.38

Source: Author's Computation (2020)

From the table, it can be depicted that there is co-integration that is there is long run relationship as the value of the F-statistics is greater than 5 percent critical value of upper bound of the Mackinnon critical value. Therefore, we reject the null hypothesis and conclude that there is long run impact of the independent variables on the rate of poverty.

Table 4: Result of the Restricted Error Correction Model

Dependent Variable: PVT Method: ARDL Proxy for Foreign Direct Investment: FDI			
Variable	Coefficient	t-Statistic	Prob.
D(PVT(-1), 2)	0.567512	2.662343	0.0374
D(PVT(-2), 2)	0.209529	1.690831	0.1418
D(FDI, 2)	-1.777660	-6.826931	0.0005
D(FDI(-1), 2)	0.849662	2.873760	0.0283
D(EXR, 2)	0.003214	0.128854	0.9017
D(EXR(-1), 2)	-0.285685	-8.603578	0.0001
D(EXR(-2), 2)	-0.102531	-4.922891	0.0026
D(INF, 2)	-0.221250	-6.085010	0.0009
D(INF(-1), 2)	0.097176	2.844940	0.0294
D(UNEMP, 2)	-0.273300	-0.406401	0.6985
D(UNEMP(-1), 2)	9.893644	7.043292	0.0004
D(UNEMP(-2), 2)	8.099629	5.905805	0.0010
D(TRO, 2)	-0.034647	-0.926614	0.3899
ECT(-1)*	-2.201462	-7.744656	0.0002
R-squared	0.967129	F-statistic	4.284264
Adjusted R-squared	0.931519		
Durbin-Watson Stat:	1.700433		

Source: Author's Computation (2020)

The error-correction term (ECT) provides further direct evidence on the long-run co-integration dynamics that exist between poverty rate and its regressors in the model. The error correction coefficient is estimated to be -2.201462, which is reasonably large (and highly significant). This suggests that any departure from the long run equilibrium is corrected at the rate of 220.1%. This means that the speed of adjustment is very high and departure from long run equilibrium will be fully corrected in less than 2 years.

Conclusion and Recommendation

Poverty is one of the most serious challenges faced by developing countries, hence, poverty reduction constitutes a key macroeconomics objective for developing countries. However, it is imperative to understand factors that cause poverty and also deal with factors linked with poverty reduction judiciously. The importance of foreign direct investment on the other hand, cannot be denied as it helps in sustaining the economic growth, welfare and development of a country. It is argued in this study that foreign direct investment, inflation, trade openness, unemployment and exchange rate are closely linked to poverty in Nigeria. To check the nature and robustness of the relationship between these variables, ARDL was adopted in the study. A time series data from 1996-2019 was used for all the variables and empirical result showed that foreign direct investment has significantly reduced poverty, while unemployment, inflation and exchange rate have caused an increase in poverty in Nigeria over the time period. It can be concluded that foreign direct investment is an engine of economic growth. The study believed Government should intensify efforts to encourage inflow of foreign direct investment this include maintaining a stable political and economic environment, proper management of FDI inflows and diversification of such inflows into different sectors other than the oil sector, improvement of the state of infrastructural facilities as well as the level of security at all levels in the country. Tariffs, import and export duties should also be access in order to encourage investors, improvement in the ease of doing business and simultaneously increase foreign direct investment inflow. Exchange rate fluctuation should be stabilizing and exchange rate policies should consider the necessity of price and interest rate stability as a unit increase in exchange rate will lead to an increase in poverty. Government should also consider the non-tariff measures as applicable in developed countries as a bid of not discouraging foreign investors. Also, government should harness the benefits of trade openness, bring inflation down to one-digit rate, implementation of poverty reduction programs

Reference

Adeleke, K. M., Olowe, S. O. & Fasesin, O. O. (2014). Impact of foreign direct investment on Nigeria economic growth, *International Journal of Academic Research in Business and Social Sciences, 4*(8) 234-242.

Adesiyan, O. I. (2014). Impact of foreign direct investment on poverty reduction in Nigeria, (1980-2009), *Journal of Economics and Sustainable Development, 5*(20) 34-45.

Adigun, A. O. (2015). *Sectoral inflow of foreign direct investment and economic growth in Nigeria, Journal of Economics and Sustainable Development, 6*(17)

Adigun, A. O. & Oke D. F. (2018). *Foreign direct investment and employment generation in Nigeria, Journal of Research in National development, (JORIND), 16*(1)

Akoh, I. I. (1999). Legal framework and requirement for foreign investment in the Nigeria capital market, *Quarterly Comparative Review of Law and Practice, MPJFIL 3, (2) (April).*

Asiedu, E. (2005). Foreign direct investment in Africa; The role of natural resources, market size, government policy, institutional and political instability, *Research Paper at World Institute for Development Economics Research (WIDER) Conference on Sharing Global Prosperity, September 2003 Helsinki.*

Anfofum, A. A. (2005). Macroeconomic determinants of private investment, *Journal of Economic and Social Research, 3,* 1-4.

Babasanya, A. O. (2018). Foreign direct investment and employment generation in Nigeria, *Journal of Economic and Sustainable Development, 9*(4), 42-47.

Central Bank of Nigeria (2009). *Annual report and statement of account*, Abuja: Nigeria.

Egbulonu, K. G. & Ezeocha, J. A. (2018). Trade openness and Nigeria's economic growth (1990-2015), *International Journal of Development and Economic Sustainability, 6* (3), 1-11.

Essien, E. & Onwioduokit, E., (1998). Capital flows to Nigeria: Issues and determinants, *CBN Economic and Financial Review, 37*, (1).

Fowowe, B. & Shuaibu, M. I. (2014). Is foreign direct investment good for the poor? New evidence from African countries, *Eco Change Restruct, 47*.

Gohou, G. & Soumare, I. (2012). Does foreign direct investment reduce poverty in Africa and are there regional differences?" *World Development, 40*

Joseph, G. D. (2018). Some government policies hindering wealth creation investment*, The Guardian*, Tuesday, June 12.

Klein, M., Aaron, C. & Hadjimicheal, B. (2001). Foreign direct investment and poverty reduction, *The World Bank Policy Research Working Paper*, 2613.

Mosima, M. (2003). *The attraction of foreign direct investment by the African countries*: *Biennial ESSA conference,* Cape Town: South Africa.

Odozi, V. A. (1995). An overview of foreign investment in Nigeria: 1960-1995, *CBN Research Department Occasional Paper, 11*, (1)

Oguh, C. (2016). *Why Nigeria no longer attracts foreign direct investment: Financial Nigeria magazine*, Abuja: Nigeria

Okogba, E. (2017). How Nigeria discourages FDI, *Vanguard*, August 16.

Okonjo-Iweala, N. (2012). Kidnappers quizzed my mum on subsidy payments', *The Punch*, *17* (12) Tuesday, December 18, Lagos: Nigeria

Okoli, T. T. & Agu, O. C. (2015). FDI Inflow and the manufacturing sector performance in Nigeria*, International Journal of economics, Commerce and Management, 3* (7).

Olusanya, S. O. (2013). Impact of foreign direct investment inflow on economic growth in a pre and post deregulated Nigeria economy: A granger causality test (1970-2010), *European Scientific Journal, 9 (25), 335-355.*

Otepola, A. (2002). *FDI as a factor of economic growth in Nigeria: African institute for economic development and planning (IDEP),* Dakar: Senegal "May

Owen, M. B. (2009). What is poverty reduction? *Centre for Global Development Working pa*per 170.

Salami, A.O. & Oyewole, I. O. (2013). Impact of foreign direct investment on employment generation in Nigeria, *International Journal of Economic Development Research and Investment, 4* (1) 64-75.

Simon-Oke, O. O. (2014). Foreign direct investment, capital formation and poverty reduction in Nigeria, *European Journal of Business and Social Sciences, 2* (10) 157-168.

Ugwuegbe, S., Ugochukwu, O. A. & John, O. O. (2013). The impact of foreign direct investment on the Nigerian economy, (1981-2009), *European Journal of Business and Management, 5* (2)

UNCTAD (2001). *World investment report (WIDER),* Transnational Corporation and Competitiveness (various reports 1985-95).